

AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

Listing of the Claims

1. (Currently Amended) A computer readable medium having a data structure for managing reproduction of video data having multiple playback paths for each title ~~video data~~, comprising:

~~a playlist directory area for storing a playlist directory including a plurality of playlist files, each playlist file for identifying a portion of the multiple playback path video data and at least a portion of the playlist files associated with different playback paths and the playlist file for storing navigation information at least providing information on one playback path, the playlist file including information indicating order of reproduction;~~

a data area ~~for~~ storing at least one clip file of the video data having multiple playback paths for each title, ~~video data~~ the clip file being associated with one of the playback paths; and

a management area ~~for~~ storing management information for managing reproduction of the video data having multiple playback paths for each title ~~video data~~, the management information including an information file associated with each clip file, each information file providing a map including at least one entry point for the associated clip file, the map ~~containing~~ mapping a presentation time stamp information corresponding to address information for a corresponding source packet address of the associated clip file; and

a playlist directory area storing at least one playlist file including at least one playitem, the playitem identifying at least one playing interval of the clip file,

the playitem including identification information indentifying the information file associated with the clip file, the playlist file storing connection information between a previous playitem and a current playitem, the playlist file indicating one of the multiple playback paths associated with the clip file.

2. (Previously Presented) The computer readable medium of claim 1, wherein a group of playlist files is associated with each playback path.

3-5. (Canceled)

6. (Currently Amended) The computer readable medium of claim 1, further comprising: wherein the

navigation information in a navigation area, the navigation information managing the playlist file to be reproduced at least provides information for linking one playlist file to another playlist file in the same playback path.

7. (Previously Presented) The computer readable medium of claim 6, wherein the different playback paths are related to different stories.

8. (Canceled)

9. (Previously Presented) The computer readable medium of claim 1, wherein the data area stores a plurality of clip files of the video data having multiple playback paths ~~video data~~, and

the video data for each playback path is stored in a different clip file.

10-15. (Canceled)

16. (Currently Amended) A method of video data having multiple playback paths for each title ~~video data~~ from a recording medium, comprising:

receiving user input selecting one of playback paths;

reproducing at least one playlist file associated with the selected playback path based on navigation information recorded on the recording medium, the playlist file including ~~information indicating order of reproduction~~ at least one playitem, the playitem identifying at least one playing interval of a clip file, the playitem including identification information indentifying the information file associated with the clip file, the playlist file storing connection information between a previous playitem and a current playitem, the playlist file indicating one of the multiple playback paths associated with the clip file;

reproducing at least ~~one~~ the clip file of the video data having multiple playback paths ~~video data~~ from the recording medium; and

reproducing management information for managing reproduction of the video data having multiple playback paths ~~video data~~ from a management area of the recording medium, the management information including an information file associated with each clip file, each information file providing a map including at least one entry point for the associated clip file, the map ~~containing~~ mapping a presentation time stamp information corresponding to address information for a corresponding source packet address of the associated clip file, the playitem including the identification information for the clip file.

17. (Previously Presented) The method of claim 16, wherein the reproducing step reproduces a group of playlist files based on the navigation information.

18. (Currently Amended) A method of recording a data structure for managing reproduction of at least video data on a recording medium, comprising:

recording a playlist directory including at least one ~~plurality~~ of playlist file[[s]] in a playlist directory area of the recording medium, ~~each~~ the playlist file for identifying a portion of video data having multiple playback paths ~~for each title video data and at least a portion of the playlist files associated with different playback paths,~~ the playlist file including at least one playitem, the playitem identifying at least one playing interval of the clip file, the playlist file storing connection information between a previous playitem and a current playitem, the

playlist file indicating one of the multiple playback paths associated with the clip file and including navigation information in the playlist file, the navigation information at least providing information on one playback path, the playlist file including information indicating order of reproduction;

recording at least one clip file of the at least video data in a data area of the recording medium, the clip being associated with one of the playback paths; and

recording management information for managing reproduction of the at least video data in a management area of the recording medium, the management information including an information file associated with each clip file, each information file providing a map including at least one entry point for the associated clip file, the map containing mapping a presentation time stamp information corresponding to address information for a corresponding source packet address of the associated clip file, the playitem including identification information indentifying the information file associated with the clip file.

19. (Cancelled)

20. (Currently Amended) An apparatus for recording a data structure for managing reproduction of at least video data having multiple playback paths for each title, comprising:

an optical ~~recording unit~~ pickup configured to record data on a recording medium; and

~~an encoder configured to encode at least video data; and~~

a controller, operably coupled to the optical pickup ~~recording unit~~, configured to control the optical pickup ~~recording unit~~ to record at least one clip file of the encoded video data in a data area on the recording medium, the clip file being associated with one of the playback paths, the controller configured to control the optical pickup ~~recording device~~ to record a playlist directory including a plurality of playlist files each including at least one playitem ~~and navigation information~~ in a playlist directory area of the recording medium, each playlist file for identifying a portion of the multiple playback

~~path video data and at least a portion of the playlist files associated with different playback paths, the navigation information at least providing information on one playback path, the playitem identifying at least one playing interval of the clip file, the playlist file storing connection information between a previous playitem and a current playitem, the playlist file indicating one of the multiple playback paths associated with the clip file, the controller configured to control the optical pickup recording unit to record management information for managing reproduction of the encoded video data in a management area of the recording medium, the management information including an information file associated with each clip file, each information file providing a map including at least one entry point for the associated clip file, the map containing mapping a presentation time stamp information corresponding to address information for a corresponding source packet address of the associated clip file, the playitem including identification information indentifying the information file associated with the clip file~~
the playlist file including information indicating order of production.

21. (Currently Amended) An apparatus for reproducing a data structure for managing reproduction of at least video data having multiple playback paths for each title, comprising:

an optical ~~reproducing unit~~ pickup configured to reproduce data recorded on a recording medium; and

a controller, operably coupled to the optical ~~reproducing unit~~ pickup, configured to control the optical ~~reproducing unit~~ pickup to ~~reproduce navigation information from at least one playlist file of the recording medium and control the optical reproducing unit to reproduce at least one playlist file in a playlist directory area of the recording medium based on the navigation information, the navigation information at least providing information on one playback path, each~~ the playlist file for identifying a portion of multiple playback path the video data and at least a portion of the playlist files associated with different playback paths, the playlist file including information indicating order of reproduction; the

playlist file including at least one playitem, the playitem identifying at least one playing interval of a clip file, the playlist file storing connection information between a previous playitem and a current playitem, the playlist file indicating one of the multiple playback paths associated with the clip file,

the controller configured to control the optical ~~reproducing unit~~ pickup to reproduce at least ~~one~~ the clip file of the at least video data from a data area of the recording medium, the clip file being associated with one of the playback paths, [;:]

the controller configured to control the optical ~~reproducing unit~~ pickup to reproduce management information for managing reproduction of the at least video data from a management area of the recording medium, the management information including an information file associated with each clip file, each information file providing a map including at least one entry point for the associated clip file, the map ~~containing~~ mapping a presentation time stamp information corresponding to address information for a corresponding source packet address of the associated clip file, the playitem including identification information indentifying the information file associated with the clip file.

22. (Cancelled)

23. (Previously Presented) The apparatus of claim 20, wherein a group of playlist files is associated with each playback path.

24. (Currently Amended) The apparatus of claim 23, wherein ~~the~~ navigation information is stored in a navigation area, the navigation information for managing the playlist file ~~at least provides information for linking one playlist file to another playlist file in the same playback path.~~

25. (Previously Presented) The apparatus of claim 21, wherein a group of playlist files is associated with each playback path.

26. (Currently Amended) The apparatus of claim 25, wherein ~~the~~ navigation information is stored in a navigation area, the navigation information for managing the playlist file ~~at least provides information for linking one playlist file to another playlist file in the same playback path.~~

27-28. (Cancelled)

29. (Currently Amended) The method of claim 16, further comprising:
~~wherein the reproducing navigation information stored in a navigation area, the navigation information for managing the playlist file~~ at least provides information for linking one playlist file to another playlist file in the same playback path.

30. (Currently Amended) The method of claim ~~29~~ 18, wherein the ~~recording the playlist directory~~ reproducing at least one playlist file reproduces ~~includes recording a group of playlist files based on the navigation information.~~

31. (Cancelled)

32. (Currently Amended) The method of claim 18, further comprising:
~~wherein the recording the playlist directory includes recording the navigation information for managing the playlist file to at least provide information for linking one playlist file to another playlist file in the same playback path.~~

33. (Previously Presented) The method of claim ~~32~~ 19, wherein the ~~recording the playlist directory~~ recording at least one playlist file records ~~includes reproducing a group of playlist files based on the navigation information.~~

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Previously Presented) The computer readable medium of claim 1, wherein the at least one clip file is linked to more than one of the plurality of playlist files.

38-43. (Cancelled)

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END OF CLAIMS LISTING